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ABSTRACT

In a study designed to further define individual differences in reading comprehension, 200 students enrolled in developmental reading courses at a large urban university participated in an experiment that investigated the relationship between personality type and reading comprehension. The students took a reading comprehension test consisting of five narrative and five expository passages and 58 comprehension questions. Each text type was compared with the dimensions on the Myers-Briggs Type Indicator, a personality instrument that measures individual preferences for one of a pair of opposite cognitive processes (Extraversion/Introversion, Sensing/Intuition, Thinking/Feeling, and Judging/Perceiving). The results indicated that most students, regardless of personality type, performed better on narrative text passages than on expository ones, a finding consistent with story grammar theory. In addition, the findings showed that personality can influence comprehension scores, particularly on the dimension of Thinking/Feeling, where an interaction between personality type and text type was found. The findings imply that researchers should assume a more integrated approach to the investigation and interpretation of the reading process. (FL)

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# Personality Type and College Reading Comprehension

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Abstract

The relationship between personality type and reading comprehension was investigated. Two hundred students from a large urban univeristy took a reading comprehension test consisting of five narrative passages and five expository passages. Each text type was compared with each dimension on the Myers-Briggs Type Indicator, a personality instrument which measures individual preferences for various cognitive processes. The results indicate that most students, regardless of personality type, perform better on narrative texts than on expository texts, which is consistent with story-grammar theory. However, more careful inspection of the two-factor Anova's reveal that personality may indeed influence comprehension score in adults, particularly the dimension of Thinking/Feeling, where an interaction between personality type and text type was found ($p < .0001$). The implications of this study call for researchers to assume a more integrated approach to the investigation and interpretation of the reading process.

## Personality Type and College Reading Comprehension

Traditionally much of the work done with personality research in education has been concerned with career choices or behavioral problems. Learning style inventories, a promising outgrowth of personality and cognitive research, often focus on environmental stimulants and personal preferences. These approaches are important and agree that personality research is a potential resource for revealing significant information about the way humans process data in learning situations (Keefe, J.W. 1982). Recent studies of personality type and writing performance already suggest that there are important effects that directly result from the interaction of personality type and the processing of linguistic data (Jensen & DiTiberio, 1984; Etter-Lewis, Jensen, & Singer, 1986). The following study examines the effects of personality type and reading comprehension.

The notions of schema theory and story grammar (Anderson, 1980; Van Dijk, 1980; Anderson, Kline & Beasley, 1979) indicate that students come to the reading situation with a narrative, chronological schemata. If these notions hold true for adults as they seem to for children, it could be predicted that developmental/remedial readers

on the college level should perform better on narrative passages than on expository, providing that the passages are "weighted" fairly equally in terms of length, difficulty of both reading and items for multiple choice questions, subject matter, etc. However, the personality variables included in this study suggest that readers may not always perform as expected. This study, then, seeks to further define individual differences in reading comprehension by investigating the effects of personality type on two different text structures, narration and exposition.

## Method

### Subjects

Approximately 200 students took the Myers-Briggs Type Indicator and a reading comprehension test. These students were enrolled in Developmental Reading courses at a large urban university in the Southeast. They received feedback on both measures, the comprehension test serving as practice for other similar tests required during the course.

### Materials

We chose to use the Myers-Briggs Type Indicator (MBTI) as the personality instrument for this study

because it allows us to look at various facets or dimensions of personality. It is an instrument based on Jungian personality theory and is used widely in the fields of psychology, career counseling, and education. On four dimensions, the instrument assesses an individual's preference for one of a pair of opposite cognitive processes. The four dimensions are:

| | |
|---|---|
| Extraversion | Introversion |
| Sensing | Intuition |
| Thinking | Feeling |
| Judging | Perceiving |

The Extraversion/Introversion scale represents the approach a person prefers for relating and making meaning in the world. The extravert prefers to approach meaning through talking with others and through experience. The introvert prefers a more introspective approach, focusing more on ideas rather than on experience. An extravert would tend to discover meaning as he talks or experiences, while the introvert would tend to think about the meaning and then talk about it.

The Sensing/Intuition dimension represents approaches for perception. A sensing type prefers working with facts and concrete details; an intuitive type prefers

more abstract possibilities in his approach to understanding. The sensor is more comfortable with specifics and the intuitive more "at home" with abstraction and generality.

The Thinking/Feeling dimensions represent a decision-making category. Thinking types tend to base their decisions on objective criteria and logical principles while feeling types base their decisions on personal values and personal outcomes.

Finally, the Judging/Perceiving dimension indicates how people approach tasks in the world of work. A judging type prefers closure and tends to be time-oriented and structured in his or her approach. A perceiver prefers spontaneity, flexibility and has as a strength thoroughness in his approach to getting things done.

Along with its high reliability, the MBTI has as one of its strengths a most positive approach. Each facet within a dimension is described in the literature in terms of a person's individual strengths (Myers, 1980; Lawrence, 1982). No value judgements are made about any particular type, and within specific types individual differences may occur.

The MBTI reveals a preference for each category

such that an individual's "type" is represented by four letters. These four letters/facets also interact in many ways, but for the purposes of this preliminary study of personality and reading comprehension, each dimension is considered separately.

The reading comprehension test consisted of 10 passages, five narrative and five expository. Based on the judegments of the researchers, passages and their accompanying comprehension questions were gathered from several reading texts in an effort to "weight" the narrative and expository passages equally. That is, two passages of each type of text were fairly long (more than 500 words), two were very short (50-80 words), and one in each group was between these. Two narrative and two expository texts were relatively "easy" and straight-forward, two of each fairly difficult, and one of each was very difficult. The subject matter varied from a story about Houdini or Colonel Sanders to essays about juvenile delinquents or jazz. There were 58 comprehension questions. The questions for each passage were textually explicit, textually implicit, and scriptally implicit. The reading comprehension test took approximately 1½ hours to complete during

two days of class time.

## Results

Four two-factor Anova's were performed with the data gathered here. We compared each of the four personality dimensions (Extraversion/Introversion, Sensing/Intuition, Thinking/Feeling, Judging/Perceiving) to see if there was a significant difference between the type of text and/or the personality type in the sample. We were interested in the main effects of the two types of text, narrative and exposition, and the two facets of each dimension, along with any interaction that might occur within a dimension of personality type.

First we looked at the meaning-making Extraversion/Introversion dimension to see if the extraverts scored differently from introverts on the narrative and expository passages. While no interaction occurs by types, two significant main effects can be seen. On both text types extraverts score higher than introverts ($p<.05$). And for both text types, all students (regardless of personality type) did better on the narrative passages ($p<.0001$). (see Figure 1 and Table 1)

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Insert Figure 1 about here

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Insert Table 1 about here

The second two-factor Anova analyzed the Sensing/ Intuition dimension. Both sensing and intuitive types scored higher on the narrative passages ($p < .05$). The difference between their mean scores was very slight (.06), with intuitives scoring a little higher than sensing types. While the exposition passages got lower scores for both types, the difference between means was greater (1.06), though not statistically significant, with intuitives scoring higher once again. Because this population has very few intuitives, the sample number in each cell was small (15 as opposed to 30 for the other Anova's). Figure 2 shows a possible interaction if the number in each cell had been larger and the lines extended. This dimenison needs more study. Most of the intuitives in this study are also extraverts and feeling types, which may skew the results in the narrative direction.

Insert Figure 2 about here

Insert Table 2 about here

The third two-factor Anova looked at the Thinking/Feeling dimension. Since this is the decision-making scale, the theory would indicate that an interaction might occur between personality type and text type. While the main effect of Thinking/Feeling alone was not significant, that is, the difference between their scores did not vary significantly, the main effect of the narrative/exposition variance was significant ($p < .001$). Most impressive, however, and worth noting for further exploration, is the interaction between these main effects ($p < .0001$). Figure 3 shows that thinking types scored higher on exposition texts and lower on narrative texts, while feeling types scored higher on narrative and lower on exposition.

Insert Figure 3 about here

Insert Table 3 about here

The fourth two-factor Anova focused on the relationship between narrative/exposition and the Judging/Perceiving dimension. These results resemble those of the Extravert/Introvert and Sensing/Intuition dimensions. (See Figure 4 and Table 4) There is no significant difference between the judging and perceiving types in their scores on each of the text types, but both groups score higher on the narrative texts than on the expository texts ($p < .01$).

Insert Figure 4 about here

Insert Table 4 about here

## Discussion

Individual differences in adult reading comprehension reflect the influence of personality variables and text structure. Specifically, the significance of the narrative/exposition main effects appear to confirm the story-grammar theory that students come to reading situations with a narrative/chronological schemata and can process narration more readily than exposition. Three of the four dimensions of the MBTI bear this out in that students in these dimensions, regardless of type, scored higher on the narrative texts. However,

one must consider carefully individual differences within each dimension.

The literature concerning personality type indicates that in general intorverts prefer reading as learning style to hearing or speaking (Myers, 1980; Lawrence, 1982). This preference might lead one to expect that introverts would perform better on all reading comprehension tests. However, our sample revealed extraverts scoring higher on both text types. The more oral preference of the extravert and the rather oral nature of narration (Ong, 1985) might explain the extraverts' performance on narrative passages, but we remain puzzled, theoretically, about their higher performance on the expository texts also. Perhaps it is the influence of other facets within the other dimensions. Further research with interactions between personality types in this area needs to be done.

On the level of decision-making, Thinking/Feeling types produced the most revealing performance. It appears that students with a feeling preference make more accurate decisions on comprehensive multiple choice tests when the text is narrative, and students with a thinking preference do better on the more logically arranged, formally presented exposition texts. These findings

indicate that the interaction between peronality preferences and type of text may indeed affect comprehension scores.

Also, since this work was done with young adults in a Developmental setting, it is now necessary to look at children and adults in other settings to fully understand the developmental implications for reading competence. If thinking type children perform better with expository texts but are primarily exposed to narrative texts in early shcooling (based on story-grammar theory), they may <u>appear</u> to be poorer readers than their feeling type counterparts. On the other hand, if most Basal Readers focus on narrative text, perhaps so many young adults score higher on narration and lower on exposition because of their more frequent exposure to narration. Another developmental possibility to be explored concerns the development of literacy. When first making the transition from orality to literacy (Ong, 1985), students might find narrative easier to comprehend. As literacy develops, perhaps the Thinking/Feeling difference emerges.

It is important to note here, too, that many text types exist, other than narration and exposition,

and that within most texts the "text type" varies (e.g. a text that seems primarily argumentative may utilize narrative examples, definition, and other forms in order to build its case.) Personality dimensions may interact differently with different text dichotomies.

More generally, the findings suggest that no single variable in isolation of others is the soul determinant of reading performance. It is the interaction of two or more variables that produces the most striking change in performance. It behooves researchers and theorists to assume a more integrated approach to the investigation and interpretation of the reading process. It is our hope that this study will encourage those in the field of reading to look beyond the text, the vocabulary, the main idea and into other related fields in their effors to understand reading performance and comprehension.

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## Authors' Notes

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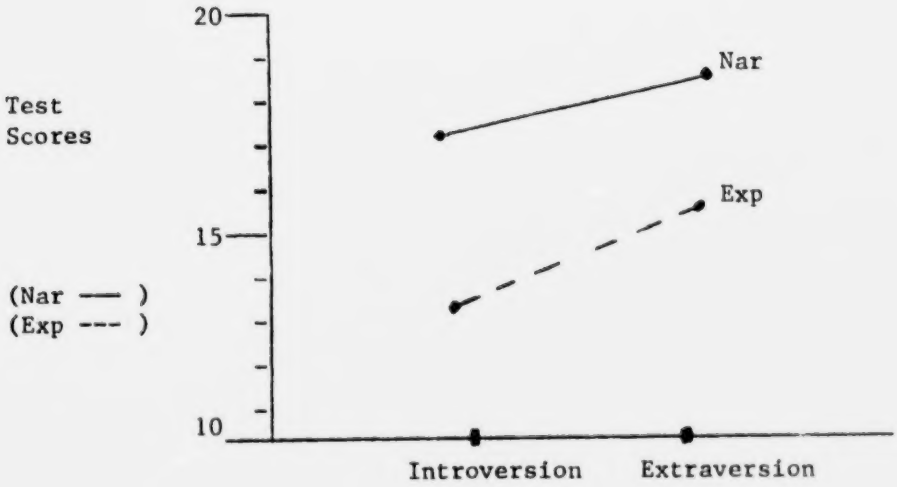
## Figure Caption

Figure 1. Reading comprehension scores of narrative texts (Nar—) and expository texts (Exp--) in relation to personality variables (Introversion (I)/Extraversion (E)).




| | Nar | Exp |
|---|---|---|
| I | 16.8 | 13.6 |
| E | 17.5 | 15.4 |

Mean Scores

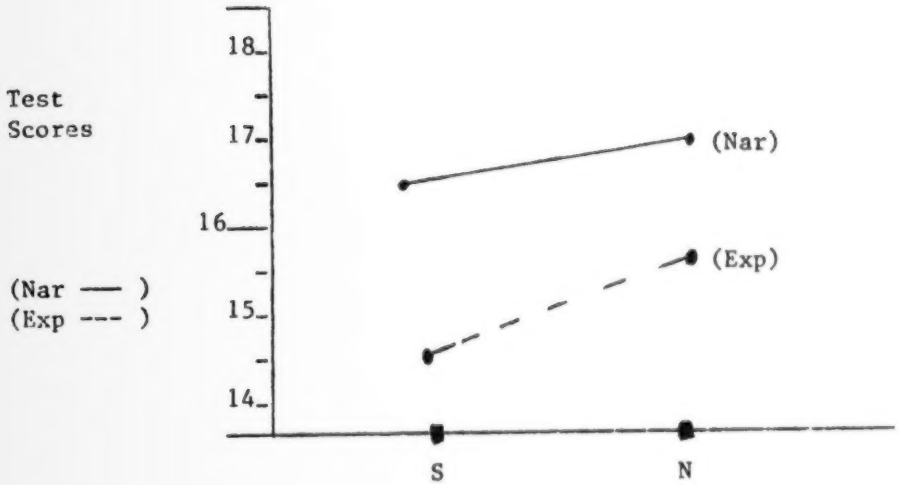
Table 1

The Effects of Introversion (Int)/Extraversion (Ext) Variables on Comprehension Scores of Narrative (Nar) and Expository (Exp) Texts

| Source | df | SS | MS | F |
|---|---|---|---|---|
| Nar/Exp | 1 | 202.8 | 202.8 | 21.73** |
| Int/Ext | 1 | 40.833 | 40.833 | 4.3753* |
| Nar/Exp X Int/Ext | 1 | 5.6333 | 5.6333 | .6036 |
| Within | 116 | 1082.6 | 9.3328 | |
| Total | 119 | 1331.9 | | |

Figure Caption

Figure 2. Reading Comprehension scores of Narrative (Nar) and Expository (Exp) texts in relation to Personality Variables (Sensing (S)/Intuition (N)).




| | Nar | Exp |
|---|---|---|
| S | 16.87 | 14.67 |
| N | 16.93 | 15.73 |

Mean Scores

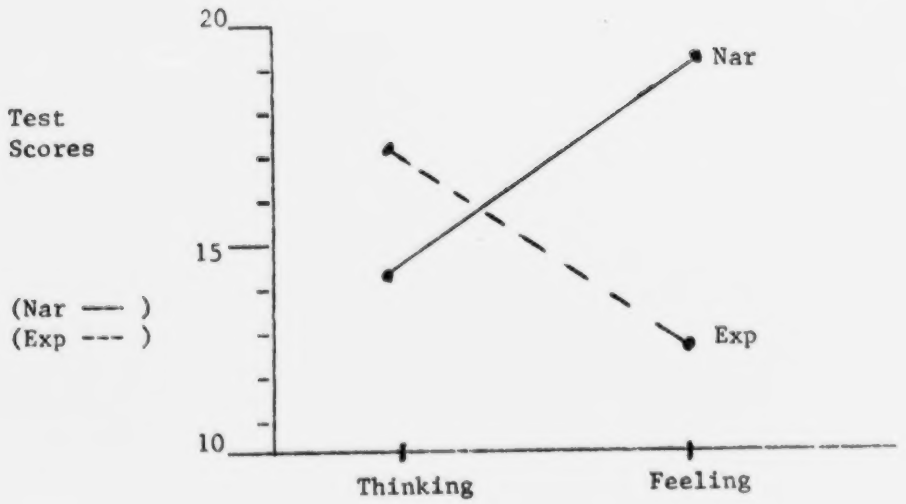
Table 2

The Effects of Sensing (S) and Intuition (N) Variables on Comprehension Scores of Narrative (Nar) and Expository (Exp) texts

| Source | df | SS | MS | F |
|---|---|---|---|---|
| Nar/Exp | 1 | 43.35 | 43.35 | 6.1469* |
| S/N | 1 | 4.8167 | 4.8167 | 0.683 |
| Nar/Exp X S/N | 1 | 3.75 | 3.75 | 0.5317 |
| Within | 56 | 394.93 | 7.0524 | |
| Total | 59 | 446.85 | | |

Figure Caption

Figure 3. Reading comprehension scores of narrative texts (Nar) and expository texts (Exp) in relation to personality variables (Thinking (T)/Feeling (F)).




| | Nar | Exp |
|---|---|---|
| T | 14.4 | 16.6 |
| F | 18.6 | 13.2 |

Mean Scores

Table 3

The Effects of Thinking (T) and Feeling (F) Variables on Comprehension Scores of Narrative (Nar) and Expository (Exp) Texts

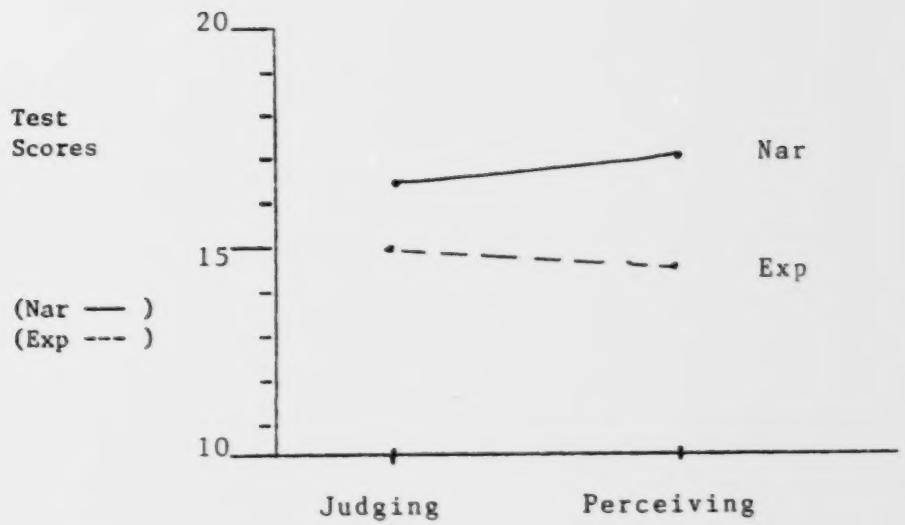
| Source | df | SS | MS | F |
|---|---|---|---|---|
| Nar/Exp | 1 | 75.208 | 75.208 | 8.84* |
| T/F | 1 | 5.2083 | 5.2083 | 0.612 |
| Nar/Exp X T/F | 1 | 437.01 | 437.01 | 51.387** |
| Within | 116 | 986.5 | 8.5043 | |
| Total | 119 | 1503.9 | | |

Personality Type

24

Figure Caption

Figure 4. Reading comprehension scores of narrative texts (Nar) and expository texts (Exp) in relation to personality variables (Judging (J)/Perceiving (P)).




| | Nar | Exp |
|---|---|---|
| J | 16.40 | 14.97 |
| P | 16.93 | 14.57 |

Mean Scores

Table 4

The Effects of Judging (J) and Perceiving (P) Variables on Comprehension Scores of Narrative (Nar) and Expository (Exp) Texts

| Source | df | SS | MS | F |
|---|---|---|---|---|
| Nar/Exp | 1 | 108.3 | 108.3 | 14.966** |
| J/P | 1 | 0.133 | 0.133 | 0.0184 |
| Nar/Exp X J/P | 1 | 6.533 | 6.533 | 0.9029 |
| Within | 116 | 839.4 | 7.2362 | |
| Total | 119 | 954.37 | | |

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